

R. J. F. S. BARON.
ELECTRIC LAMP FITTING.
APPLICATION FILED JAN. 17, 1907.

965,853.

Patented Aug. 2, 1910.

3 SHEETS—SHEET 1.

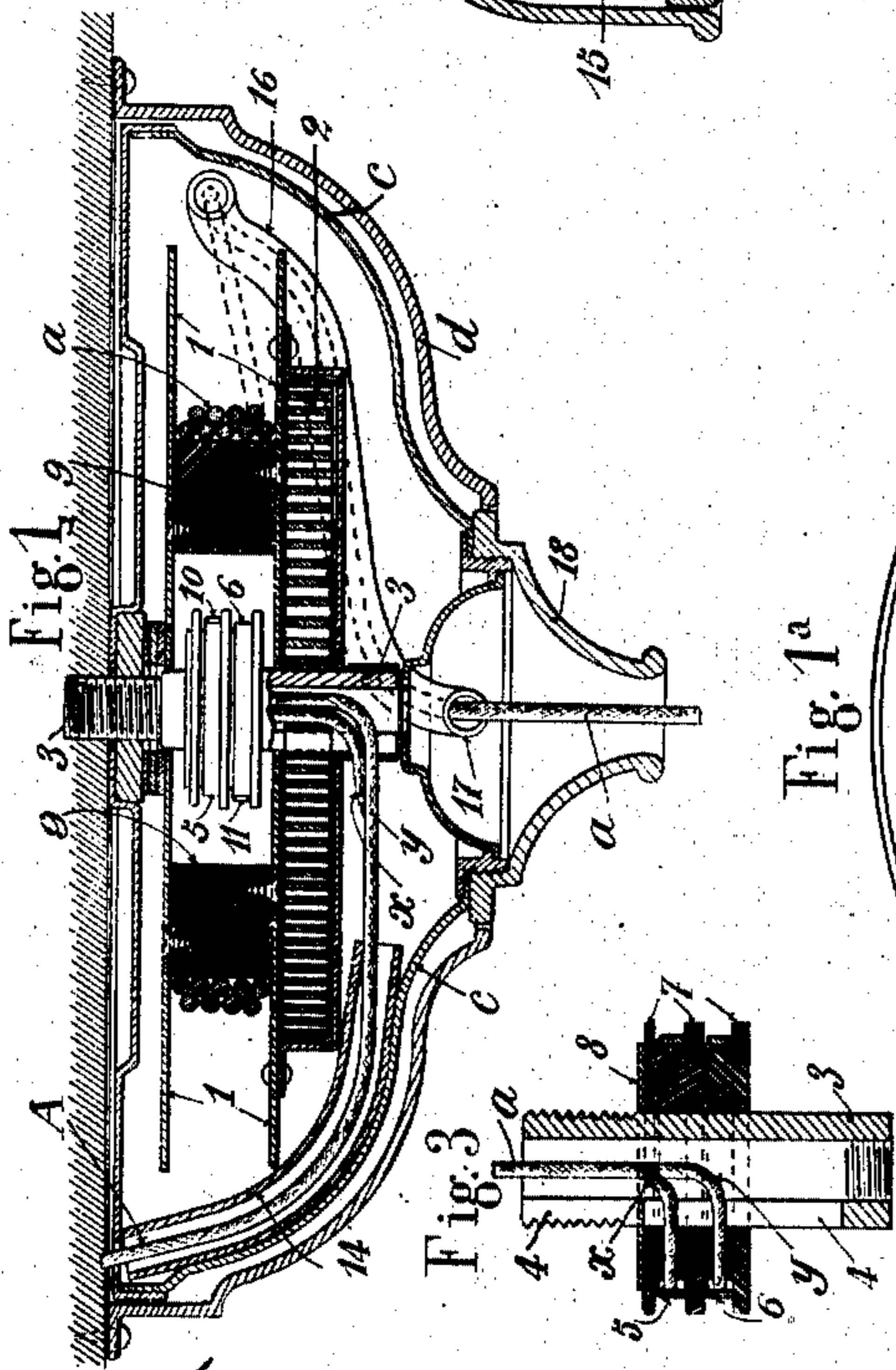
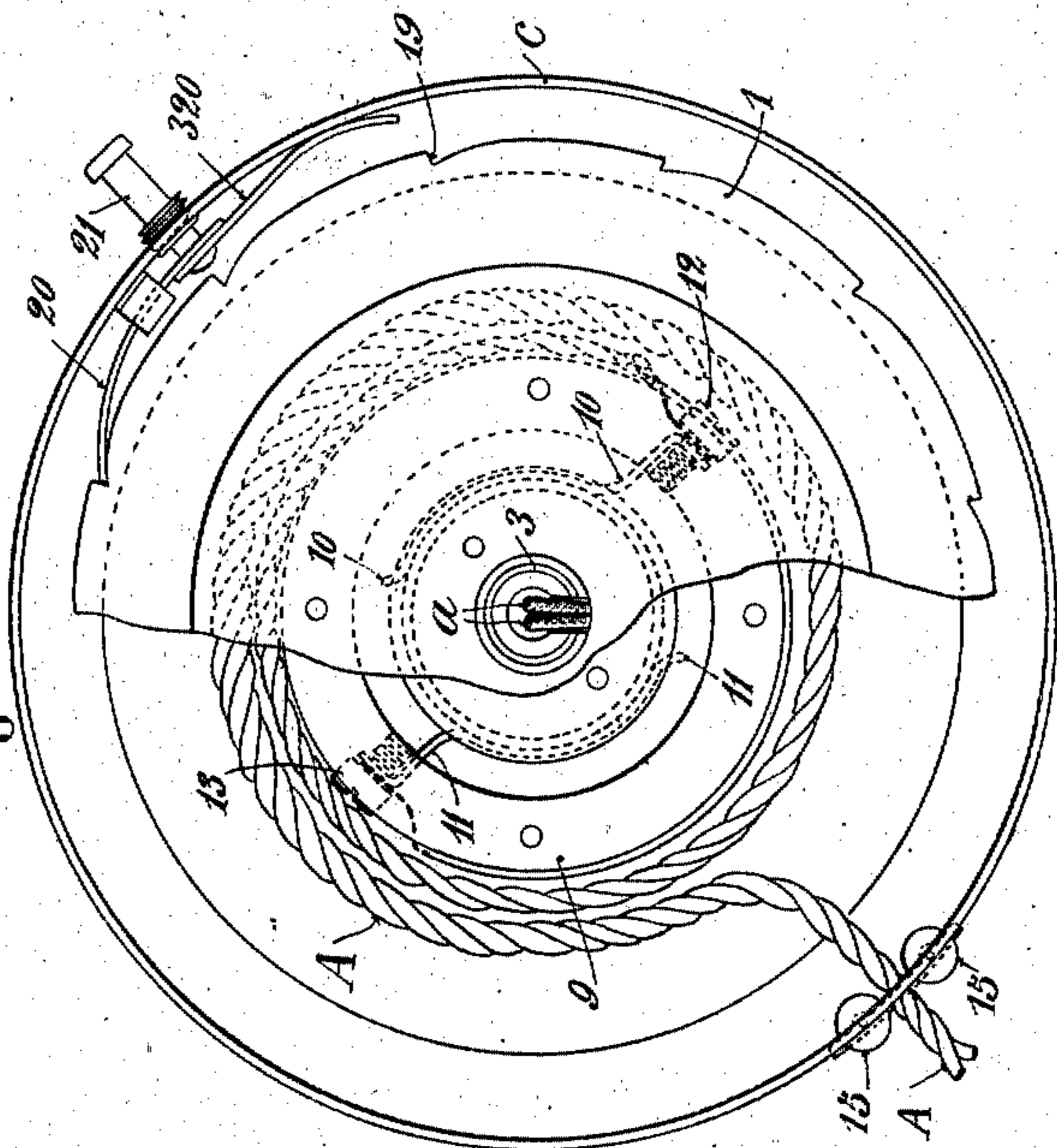
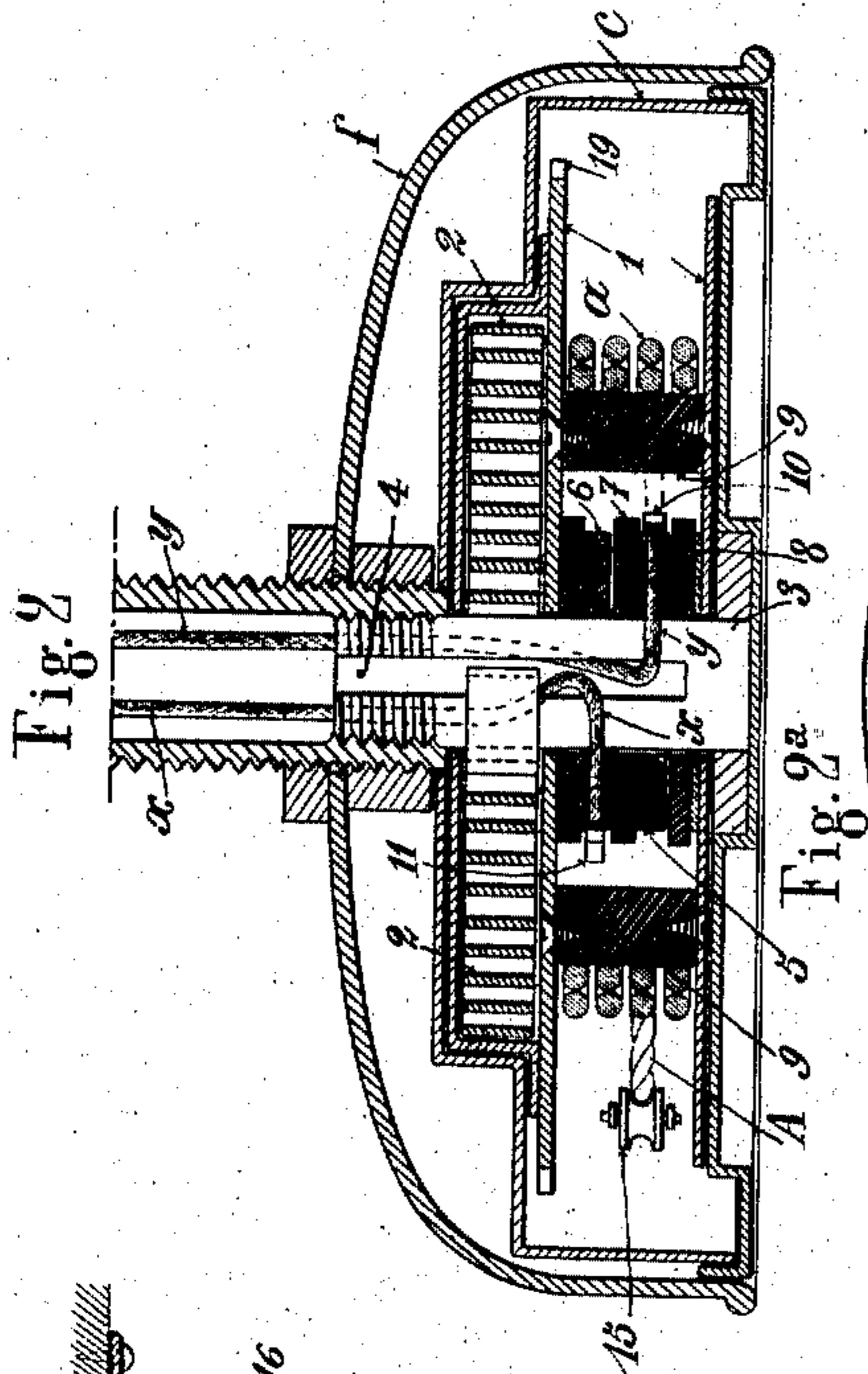
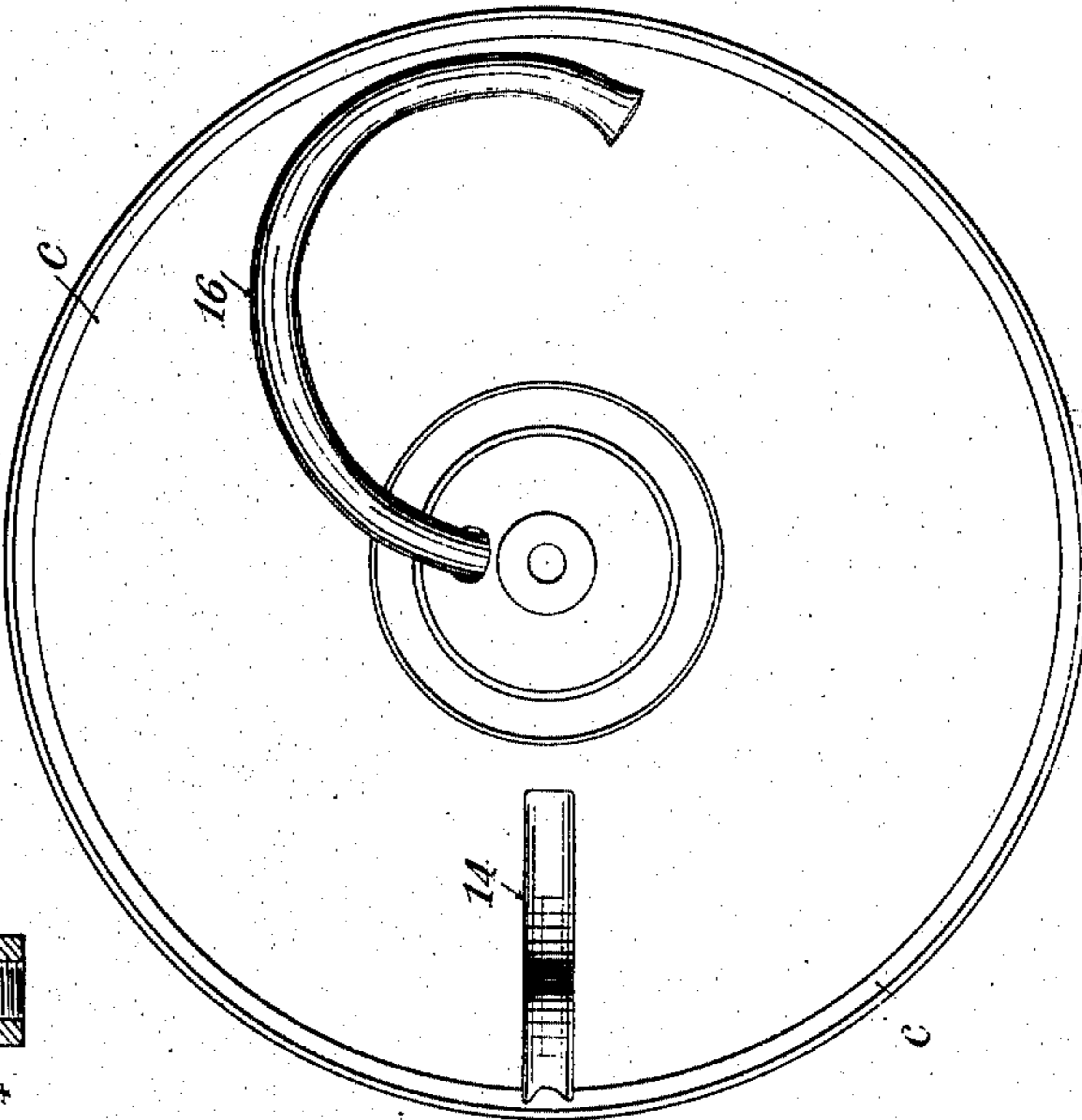


Fig. 1a



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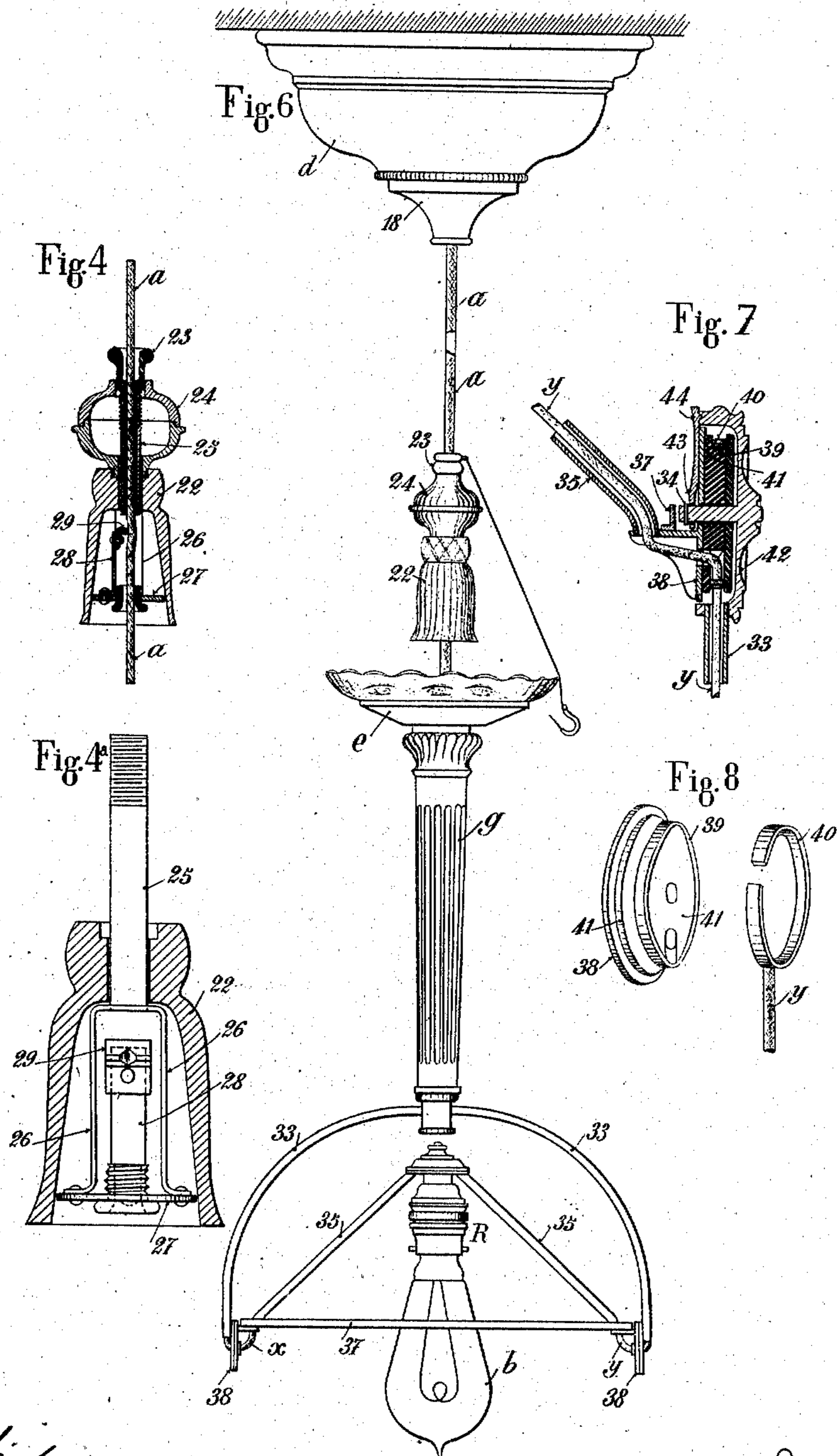
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Witnesses
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Attorney

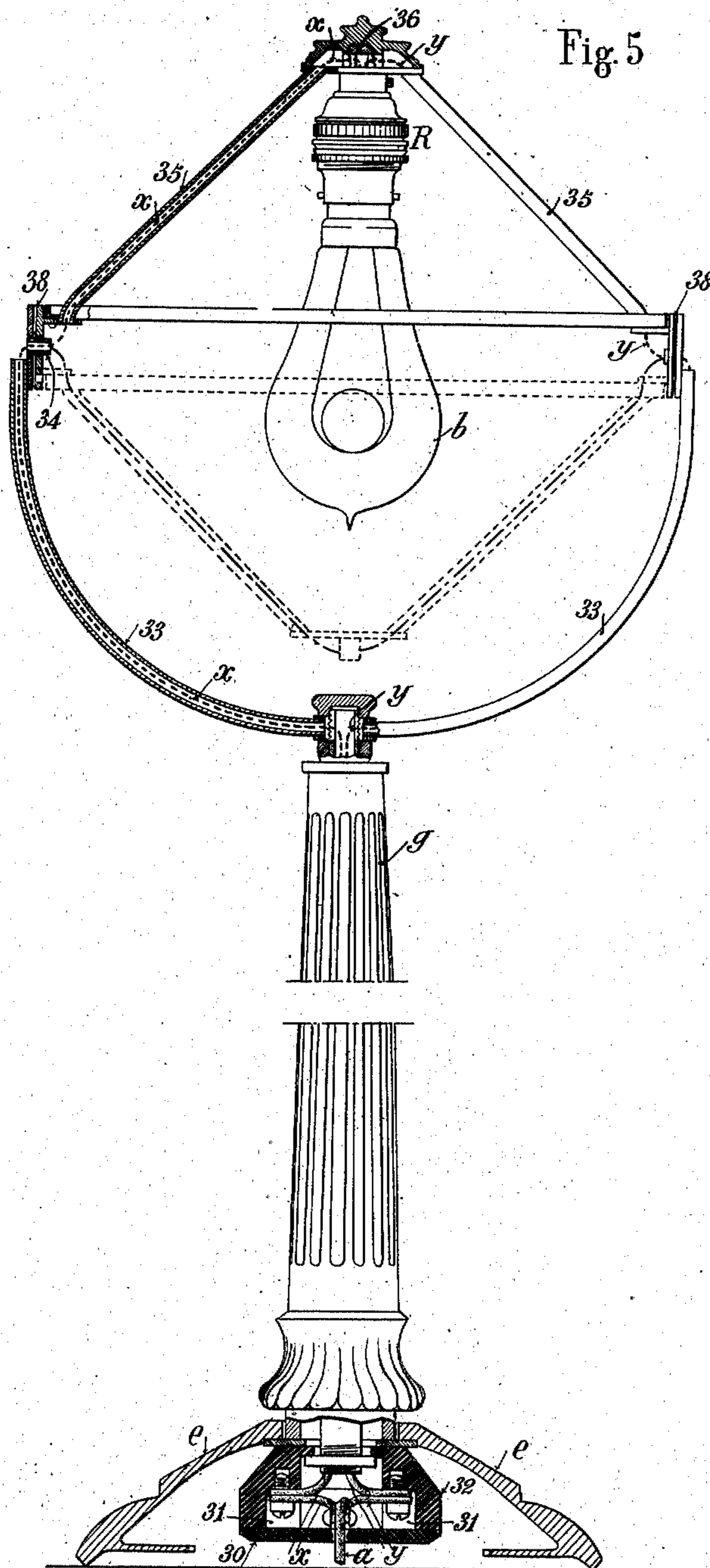
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

RENÉ JOSEPH FRANÇOIS SAMUEL BARON, OF PARIS, FRANCE.

ELECTRIC-LAMP FITTING.

965,853.

Specification of Letters Patent.

Patented Aug. 2, 1910.

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To all whom it may concern:

Be it known that I, RENÉ JOSEPH FRANÇOIS SAMUEL BARON, a citizen of the Republic of France, residing at Paris, France, have invented a certain new and useful Electric-Lamp Fitting, of which the following is a specification.

This invention relates to a new fitting for incandescent electric lamps, suspended to the ceiling of a room, by means of which it is possible, without cutting off the current supplied to the lamp or lamps, and without being inconvenienced by the portion of the electric cable connecting the lamp or lamps to the circuit:—1, to move the lamp in a large radius for the purpose of strongly lighting some portion of the room, whatever be its height; 2, to adjust the fitting of the suspended lamp, so as to make it play the part of a stand lamp, sending out its luminous rays in any desired direction. This method of fixing makes it therefore possible without any interruption of the current, to use a suspension lamp as a stand lamp which can be placed on any piece of furniture in the room, and as a wall lamp by suspending it on a vertical wall. The stand lamp or the wall lamp can be instantaneously again suspended, whenever desired without the light being put out.

A construction embodying the present invention, is illustrated in the accompanying drawing.

Figure 1 is a vertical section showing the construction of the winding drum for the cable supplying the currents when this drum is fixed to the ceiling, Fig. 1^a is a plan of the inner face of the casing of the winding device showing the bent conduit which directs the cable toward its exit from the casing. Fig. 2 is a vertical section of the winding drum for the cable when placed in the foot of a standing lamp, Fig. 2^a is a plan of the winding drum shown in Fig. 2 seen from below, the recessed sides of the drum being supposed to be partially removed, Fig. 3 is a vertical section of two distributing rings for the electric current, the wires for which are connected into a single cable *a*. Figs. 4 and 4^a are two vertical sections showing the construction of the heavy gland which slides on the cable *a* and is intended to oppose the winding of the cable. Fig. 5 shows in elevation and partly in section the hanging lamp in an inverted

position and placed vertically to form a stand lamp. This lamp is provided with a reversible shade arranged so that the current is supplied without interruption to the incandescent lamp *b* whatever be the position of the shade and of the lamp *b*. Fig. 6 shows in outside elevation the application of the winding device secured to the ceiling for lighting with a suspension lamp. Fig. 7 is a vertical section on the axis of rotation of the support of the lamp shown in Fig. 6, showing the connection of the wires supplied to the lamp. Fig. 8 is an outside elevation in perspective of the movable core which surrounds the axis of rotation of the lamp and the metal contact ring.

The two wires *x* and *y* supplying the current obtained from the usual cable *A*, to the lamp or lamps, are formed into a cable *a* which is wound on a drum 1 driven by a coiled spring 2 attached above or below it. This drum and its parts are arranged in the recess of a metal box *c* which is hidden behind a shell *d* (Figs. 1 and 6), made of metal or other material, and secured to the ceiling of the room, or in the hollow stand or foot of the stand lamp (Fig. 2). The drum 1 and the spring 2 are mounted on a fixed hollow pin 3 to which are secured the distributing rings for the negative and positive currents. The wires *x* and *y* supplying the currents, pass into the bore of the pin 3 which is provided along a portion of its length with a longitudinal slot 4 for the passage of the wires *x* and *y* which respectively pass to the insulated metal rings 5 and 6 which are mounted upon and separated by disks 7 of insulating material; the whole being kept in place by a metal washer 8. Owing to the slot 4, the spiral spring 2 can be secured in the center, so that the drum rotates about the fixed pin under the action of the spiral spring 2. On the circumference of the rings 5 and 6 slide two independent metal contacts 10 and 11 attached to a ring 9 of insulating material by means of screws or terminals 12, 13 supplying the current from one or the other pole or wire *x* or *y* in the cable *A* to the corresponding wire *x* or *y* of the cable *a* wound on the ring 9, which forms the winding surface of the drum.

When it is desired to secure the winding device to the ceiling, or at a certain distance

from the ceiling to the fitting of the apparatus, the wires x y are directed toward the hollow pin 3 by a passage way 14 on the inside of the box c , and the cable a on leaving the drum is guided by a roller 15 into a helical conduit 16, attached to the interior of the box c which brings it at 17 below the spindle 3 of the winding device. A bell mouth 18 screwed to the bottom part of the winding device, is intended to hold the molded shell d concealing the inner parts of the winding device, and to bring the cable a outside. The spindle 3 is screwed at the ceiling into a union piece provided for the purpose. The friction exercised on the cable a by the walls of the helical conduit 16, prevents the spring 2 from bringing it back if the balance weight which will be hereinafter described, is sufficiently heavy. As soon, however, as the said weight is raised, the power of the spring 2 is sufficient to overcome the said friction and to bring back the cable a , and the lighting apparatus is brought to the desired level.

When the winding device has to be placed in the base of a lamp or other lighting apparatus, it is given in plan the shape shown in Figs. 2 and 2^a, and one of the cheeks or sides 1 of the drum is provided with notches 19 with which engages a spring pawl 20 operated from the outside by a knob 21. When it is desired to wind up the cable which has passed freely out of the box c between the rollers 15 owing to the movement of the lamp, it is sufficient to push the knob or button 21 which releases the spring 2 which drives the drum 1. The currents passing into the cable from the ordinary electric wire A, after the said cable has been wound on the drum, are supplied to the terminals 12 and 13, then collected by the contacts 10 and 11, and supplied to the wires x and y which are brought together into a common cable a which passes through the hollow spindle 3, into the hollow column of the lamp.

In case it is desired to apply the fitting according to this invention to a hanging lamp as shown in Fig. 6, since at the moment when the suspended lamp is turned over and placed on a piece of furniture, or hung on a vertical wall, the spring 2 for the cable a is no longer affected by the weight of the lamp, and would have the tendency to move the lamp by winding the said cable, the latter is provided with a movable weight balancing the traction effort of the spring on its leaving the helical conduit 16. This movable balance weight Figs. 4 and 4^a is constituted by a hollow molded gland 22 on the top of which is mounted a perforated nut 23 through which passes the cable a . This nut is screwed against the upper dome 24 of the gland on a guide tube 25 to the bottom portion of which is attached, by

means of a bracket 26, a disk 27 to which is secured a spring 28 provided at the top with a projection 29, which terminates opposite the perforation of the pipe 25 and serves to push the cable a out of the vertical, in order to prevent its winding, except in the case when the gland is raised by hand. The weight of the gland can be modified by placing weights on the dome 24. The projection 29 enables the gland to be moved on the cable so as to bring it to the desired level.

The lamp b being able to occupy various positions according as its fitting is pulled out or wound up and placed on a horizontal table or hung on a vertical wall, it is necessary to direct its luminous rays in the desired direction by means of a movable shade, so as to send the light in the desired direction without interrupting the current. To this end, after having passed the insulating false bottom 30 of the box fixed in the recess of the bell e , constituting the molded foot of the lamp, the cable a is branched off in such manner that the wires x and y constituting it, are separated and passed through different openings 31 made in the cup 32 of insulating material arranged in the bottom of the bell e into the hollow column g of the apparatus, to the end of which is secured the support or bracket for the shade and the lamp b . The wires x and y pass through the hollow branches 33 of the said support and terminate in the hollow trunnions 34 of fixed plates about which trunnions rotate plates or bosses 38 carrying a circular gallery 37 for the hollow tube frame work 35 of the shade. The wires x and y pass through the said tubes and terminate in the ordinary socket R to which is secured the lamp b . This arrangement requires that the plates 38 which rotate opposite to each other should be provided with stop notches for avoiding any torsion or twisting which would injure the wires.

If it be desired that it should be possible to turn the shade in any direction, and to stop it at any angle, the construction shown in Figs. 7 and 8 is used, in which the wires x and y terminate at fixed metal rings 40, concentric with other metal rings 39 rotating with the shade, and from which the current is taken by the wires x and y which are soldered to the said rings 39 and passed into the hollow tubes 35. The rings 39 and 40 are arranged in an insulating material 41 which protects them against any outside contact, either with the solid spindle 34 or with the decorative casing 42 which hides the joint. The fixed spindle or trunnion 34 is surrounded by a collar 43 secured to a flexible metal finger 44, the free end of which rests on the edge of the casing 42. The end of the said finger engages with recesses made on the circumference of the

casing, the said recesses corresponding to the different positions which the shade may occupy.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In an electric lamp fitting and in combination, a casing, means to secure said casing to a ceiling, a central hollow spindle fixed in said casing, a drum rotatably mounted on said spindle and comprising a ring of insulating material which forms the winding surface of said drum, a coiled spring adapted to rotate said drum, two insulated rings fixed on said spindle within said drum-ring, two metal contacts adapted to slide respectively one on each spindle ring and secured on said drum-ring, a cable wound on said drum-ring and formed of two wires connected respectively to said contacts, and an electric connection between each spindle ring and the wire of an electric supply cable.

2. In an electric lamp fitting and in combination, a casing having an opening in the upper part thereof and provided with a slot, means to secure said casing to a ceiling, a central hollow spindle fixed in said casing, a drum rotatably mounted on said spindle and comprising a ring of insulating material which forms the winding surface of said drum, a coiled spring adapted to rotate said drum, two insulated rings fixed on said spindle within said drum-ring, two metal contacts adapted to slide respectively one on each spindle ring and secured on said drum-ring, a cable wound on said drum-ring and formed of two wires connected respectively to said contacts, a conduit within the casing leading from the opening therein and ending opposite the slot in said spindle, and an electric supply cable passing through said conduit and said slot into the interior of said spindle and having its two wires connected respectively to said insulated rings.

3. In an electric lamp fitting and in combination, a casing, means to secure said casing to a ceiling, a central hollow spindle fixed in said casing, a drum rotatably mounted on said spindle and comprising a ring of insulating material which forms the winding surface of said drum, a coiled spring adapted to rotate said drum, two in-

ulated rings fixed on said spindle within said drum-ring, two metal contacts adapted to slide respectively one on each spindle ring and secured on said drum-ring, a cable wound on said drum-ring and formed of two wires connected respectively to said contacts, an electric connection between each spindle ring and the wire of an electric supply cable, and means within the casing which as the drum cable leaves the drum guide it below said spindle.

4. In an electric lamp fitting and in combination, a casing, means to secure said casing to a ceiling, a central hollow spindle fixed in said casing, a drum rotatably mounted on said spindle and comprising a ring of insulating material which forms the winding surface of said drum, a coiled spring adapted to rotate said drum, two insulated rings fixed on said spindle within said drum-ring, two metal contacts adapted to slide respectively one on each spindle ring and secured on said drum-ring, a cable wound on said drum-ring and formed of two wires connected respectively to said contacts, an electric connection between each spindle ring respectively and the wires of an electric supply cable, and a bent conduit within said casing adapted to receive said drum cable as it leaves the drum and guide it below said hollow spindle and a roller on said casing to guide said cable into said conduit.

5. In an electric lamp fitting the combination with a fixed casing, provided with an opening, a rotatable drum mounted within said casing, a coiled spring controlling said drum, an electric cable wound on said drum and passing through said opening, and a bent conduit within said casing through which the cable passes from the drum, of a balance weight outside of said casing through which balance weight the cable passes, and means within said weight to hold said weight at any point of the cable when said weight is free.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses:

RENÉ JOSEPH FRANÇOIS SAMUEL BARON.

Witnesses:

ALBERT MAULVAULT,
HANSON C. COXE.